

## **United States Department of the Interior**



## FISH AND WILDLIFE SERVICE Red Bluff Fish & Wildlife Office 10950 Tyler Road, Red Bluff, California 96080 (530) 527-3043, FAX (530) 529-0292

January 18, 2013

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (January 1, 2013 - January 14, 2013)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period January 1, 2013 through January 14, 2013. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

Date	Discharge volume (cfs) 1	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
				BY12 Winter	BY12 Spring	BY12 Fall	BY12 Late-Fall	BY13 RBT
1/1/2013	8,380	6.9	7.9	1,857 (60 – 108)	0(-)	175,195 (29 – 39)	149 (112)	0(-)
1/2/2013	8,010	6.9	7.8	726 (58 – 104)	0(-)	184,615 (30 – 39)	201 (118)	0(-)
1/3/2013	7,670	6.9	7.7	5,509 (58 – 105)	495 (55 – 56)	229,997 (30 – 39)	385 (134)	0(-)
1/4/2013	7,370	7.2	5.6	1,677 (57 – 102)	0(-)	131,962 (30 – 40)	373 (115 – 126)	0(-)
1/5/2013	7,150	7.3	8.1	1,631 (57 – 66)	0(-)	250,245 (30 – 39)	510 (126)	0(-)
1/6/2013	6,980	7.8	6.3	529 (57 – 67)	176 (51)	103,524 (26 – 40)	353 (116 – 122)	0(-)
1/7/2013	7,030	8.3	6.6	1,351 (71 – 102)	0(-)	225,229 (31 – 40)	0(-)	0(-)
1/8/2013	6,940	8.5	7.2	3,223 (67 – 109)	184 (52)	555,397 (29 – 40)	0(-)	0(-)
1/9/2013	7,070	8.5	_	_	_	_	_	_
1/10/2013	7,150	7.8	9.6	370 (65 – 72)	370 (45 – 57)	496,961 (31 – 39)	370 (161 – 200)	0(-)
1/11/2013	7,450	7.3	9.5	737 (65 – 118)	368 (47 – 51)	935,411 (30 – 41)	184 (167)	184 (110)
1/12/2013	7,170	6.9	8.7	176 (68)	176 (59)	745,368 (32 – 41)	0(-)	0(-)
1/13/2013	6,980	6.4	8.8	897 (63 – 109)	1,104 (52 – 54)	631,400 (30 – 40)	0(-)	0(-)
1/14/2013	6,800	6.2	7.4	605 (62 – 110)	158 (50 – 59)	618,778 (29 – 41)	0(-)	0(-)
Biweekly Total <sup>2</sup>				20,289	3,424	5,947,968	2,617	215
Biweekly Lower 90% Confidence Interval				12,018	1,581	4,326,791	1,270	-57
Biweekly Upper 90% Confidence Interval				28,561	5,268	7,569,145	3,965	487
Brood Year Total				1,283,967	127,373	7,445,822	142,532	215
Brood year Lower 90% Confidence Interval				904,334	80,537	5,221,422	31,802	-57
Brood year Upper 90% Confidence Interval				1,663,599	174,209	9,670,222	253,262	487

<sup>&</sup>lt;sup>1</sup> Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (<a href="http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd">http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd</a>).

<sup>&</sup>lt;sup>2</sup> Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

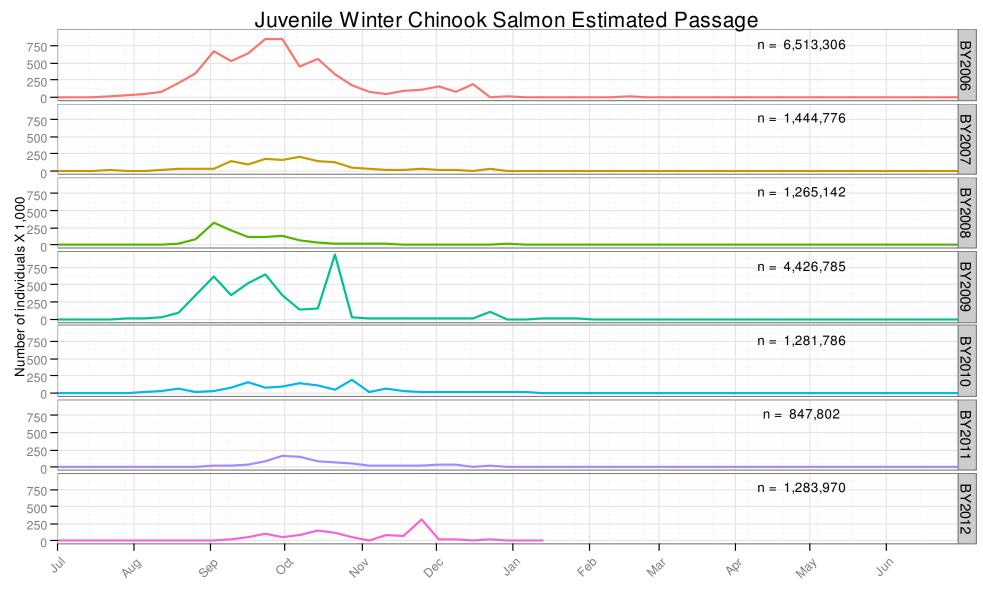


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2006 to present.

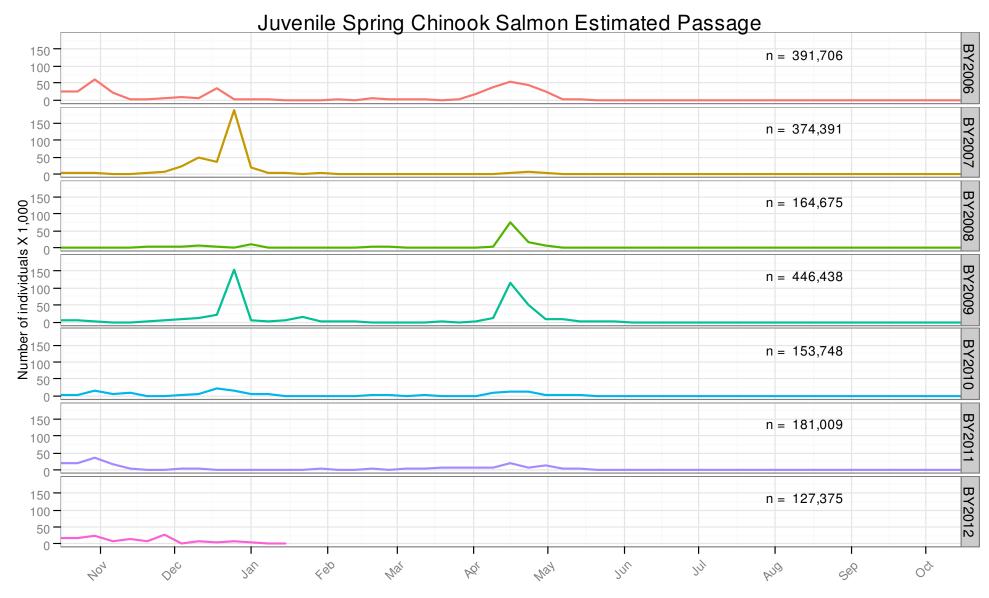


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2006 to present.

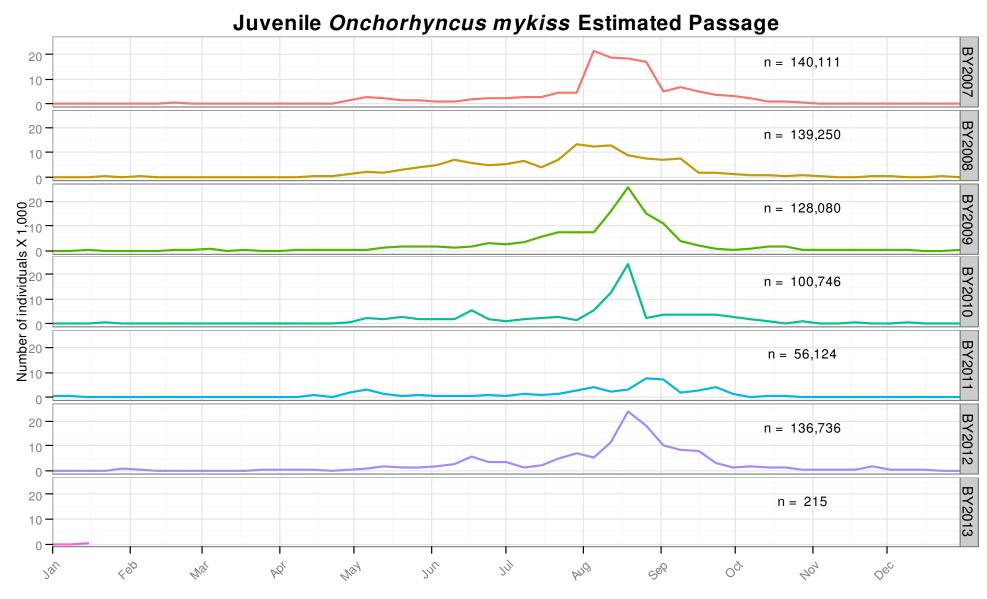


Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2007 to present.

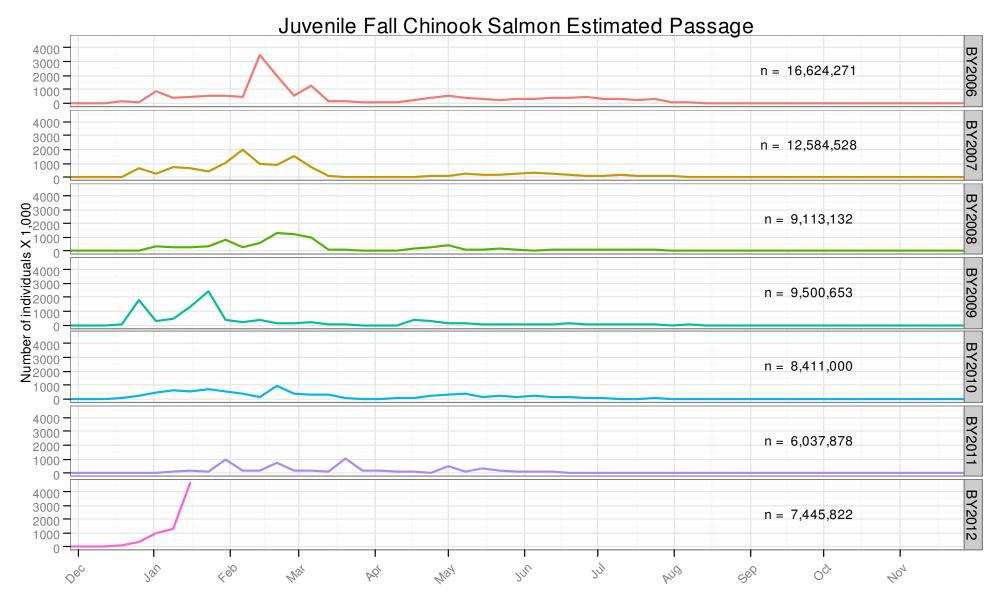


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2006 to present.

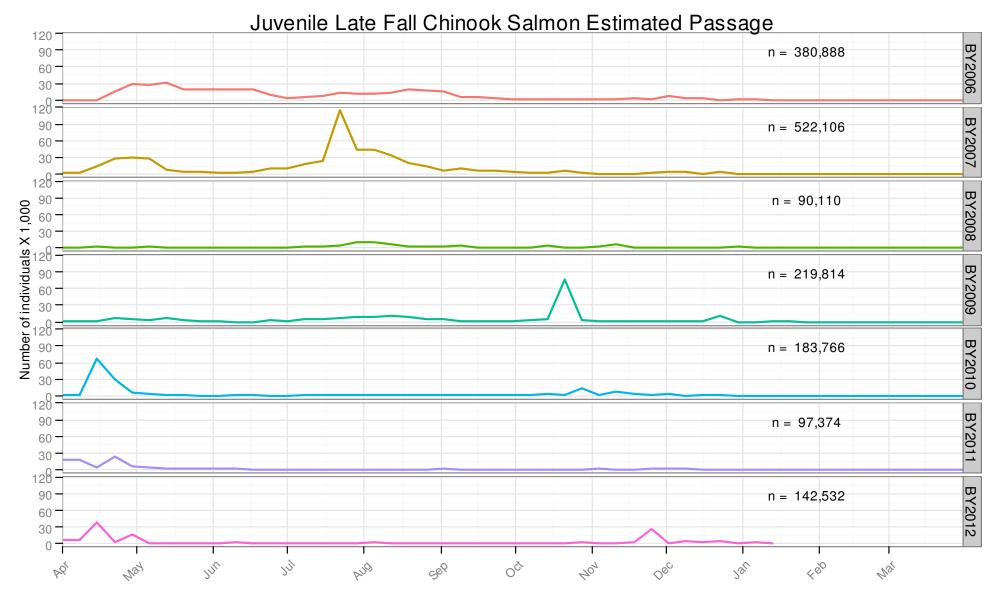


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2006 to present.

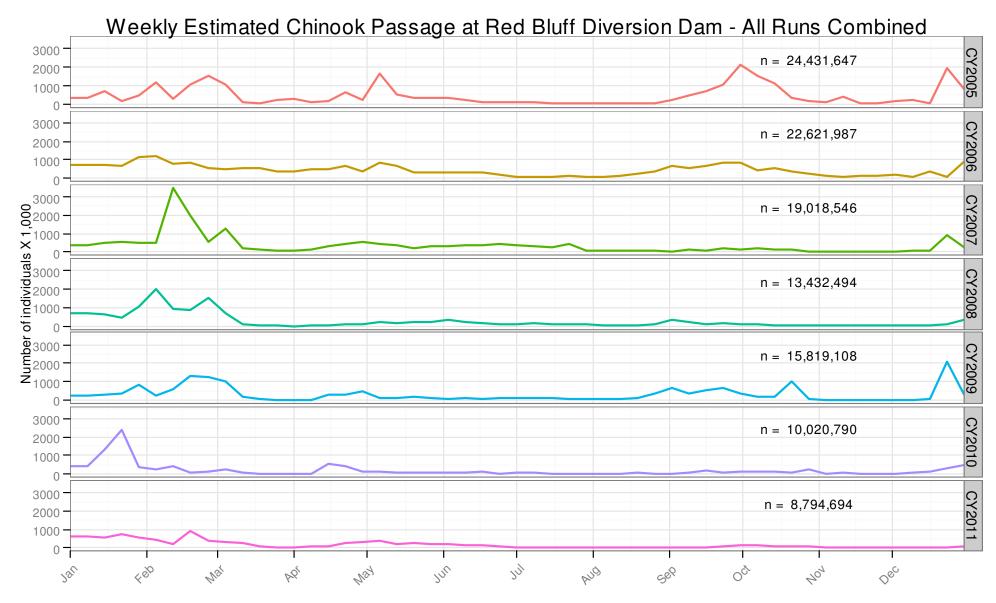


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to December 31 2011